

**REMARKS/ARGUMENTS****1.) Claim Amendments**

The Applicant has amended claims 1-5, 8, 10-11, 14-16, 18-19, and 25-26. Claims 1-26 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks. Claims have been amended in response to the Examiner's objections. Consequently, they do not raise new issues that would require a further search or substantial consideration by the Examiner.

**2.) Examiner Objections - Drawings**

The drawings were objected to because in Fig. 1-1 and 1-2, a legend such as "Prior Art" should be used. The Applicant has amended Fig. 1-1 and Fig. 1-2 to add the legend and replacement sheets are enclosed. The Examiner's approval of the drawing change is respectfully requested.

**3.) Examiner Objections - Claims**

The Examiner objected to claims 1-26 because of various informalities. The Applicant appreciates the Examiner thorough review of the claims and has amended the claims to correct the informalities. The Examiner's consideration of the amended claims is respectfully requested.

**4.) Claim Rejections – 35 U.S.C. § 103 (a)**

The Examiner rejected claims 1-26 under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art in view of Christenson, et al. (US 6,324,620). The Applicant respectfully traverses this rejection.

The combination does not show all the claim elements:

As provided in MPEP § 2143, “[t]o establish a prima facie case of obviousness, ... the prior art reference (or references when combined) must teach or suggest all the claim limitations.”

For instance, Claim 1 states:

1. A method for storing data read from a primary memory device in a secondary memory device for a read/write access by a processing device, the data in the primary memory device being organized as a plurality of data blocks each consisting of one or more data objects and the data objects being stored at one or more data regions of the secondary memory device, the secondary memory device comprising a plurality of data storage sections each including one or more data regions, the method comprising the steps of:

determining for each data object an access frequency indicating a number of accesses in a unit time interval; and

storing a particular data object whose particular access frequency falls in a predetermined access frequency range in the one or more data regions belonging to a same data storage section.

Nothing in either the Background or Christenson teaches or discusses “determining for each data object an access frequency indicating a number of accesses in a unit time interval.” The data discussed in Christenson appears to be raw data on “certain areas of the actual physical hard disk.” Christenson (col. 7, lines 25-30). Christenson does not teach or suggest “determining for each data object” an access frequency. Similarly, the Background discusses the storage of pages in cache memory, but not “a particular data object.” (See Background, page 6, first paragraph). Thus, all the claim elements are not taught by the combination of the cited art.

Furthermore, under MPEP § 2142, “[i]f the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness.” It is respectfully submitted that the Office action does not factually support a prima facie case of obviousness based on the Applicant’s background section and Christenson.

There is no Motivation to Combine the References:

According to MPEP § 2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Obviousness cannot be established by combining references “without also providing evidence of the motivating force which would impel one skilled in the art to do what the patent applicant has done.” MPEP 2144, quoting from *Ex parte Levengood*, 28 USPQ2d 1300, 1302 (Bd. Pat. App. & Inter. 1993). “Broad conclusory statements regarding the teaching of multiple references, standing alone are not “evidence.” See *Dembiczak*, 50 USPQ2d, 1614, (Fed. Cir. 1999).

Thus, the case law is clear that there must be evidence that a skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. It is also clear that a rejection cannot be predicated on the mere identification of individual components of claimed limitations. Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. *Ecolchem Inc. v. Southern California Edison*, 56 USPQ2d 1065, 1076 (Fed. Cir. 2000).

The Examiner states that one skilled in the art would have modified the Background with Christenson “because Christenson et. al. teaches that this would relieve the memory bottleneck of a computer system and increase the speed of the system.” The Applicant respectfully disagrees with this characterization of Christ. In context, it is clear that the Christenson deals with memory bottlenecks relating to direct access storage devices or DASDs, and not primary or secondary memory. (See Christ,

col. 2, lines 45-48). In this context, Christenson only appears to deal with data portions in partitions (See Christ, col. 8, lines 13-33). The Background only discusses swapping pages from the memory regions. Thus, there is no motivation provided for dealing with "particular data objections from either the Background or Christ.

In reference to claims 3 and 17, the Examiner admits that the combination of the Background section and Christenson does not teach strong the access frequency with the data in the memory. The Examiner states that "it would have been obvious to one of ordinary skill in the art to store the access frequency with the data in memory because this would simplify the process of determining whether data should be moved from one 'warmth' section to another 'warmth' section." However, this reason for motivation is not taught nor suggested by the cite art. Furthermore, there is nothing in the Examiner's statements which suggests that combining this element with the other claim elements would motivate one skilled in the art to store "a particular data object whose particular access frequency falls in a predetermined access frequency range in the one or more data regions belonging to a same data storage section." Thus, it is respectfully asserted that there has been no "evidence" presented of a motivation to combine the references.

The case law makes it clear that the best defense against hindsight-based obviousness analysis is the rigorous application of the requirement for a showing of a teaching or motivation to combine the prior art references. See *Dembiczak*, 50 USPQ2d, 1614, 1617 (Fed. Cir. 1999). "Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability – the essence of hindsight." *Id.* It is respectfully submitted that the only way the Background and Christenson could be pieced together to defeat patentability is indeed to use Applicant's disclosure as a blueprint.

With regard to claims 4-9, 11-14, and 19-24, there has not even been an attempt to provide the motivation for combining the references.

Applicant requests references to support the Examiner's assertion of "well known in the art:"

The Office action rejects claims 3 and 17 by stating that "it would have been obvious to one of ordinary skill in the art to store the access frequency with the data in memory because this would simplify the process of determining whether data should be moved from one 'warmth' section to another 'warmth' section." It is presumed that the examiner believes that this element must be "well known in the art." As the Examiner is aware, in order preserve the Applicant's right to traverse this assertion in later actions, the Applicant must traverse this assertion in this Office action. Thus, the Applicant respectfully traverses the assertion that these limitations are obvious in light of what is "well known in the art" and, as permitted under MPEP § 2144.03, requests that the Examiner cite a reference in support of his position for each rejected claim.

Alternatively, if the Examiner is relying on his personal knowledge as the basis for these assertions, Applicant respectfully objects to the Examiner's use of official notice. Under MPEP § 2144.03, official notice may only be taken of "facts outside of the record which are capable of instant and unquestionable demonstration as being 'well-known' in the art." (Emphasis added). When a rejection is based on facts within the personal knowledge of the Examiner, the facts must be as specific as possible, and the reference must be supported, when called for by the Applicant, by an affidavit of the Examiner, which may be subject to explanation by the Applicant. 37 CFR 1.104(d)(2). Pursuant to 37 CFR 1.104(d)(2), the Applicant respectfully requests the Examiner provide such supporting facts and evidence in the form of an affidavit, so that, if necessary, the Applicant may have a chance to explain the reference in later actions.

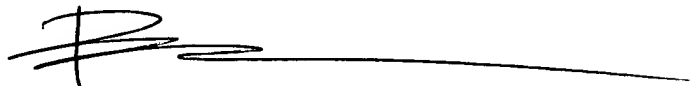
Claims 11, 15, 19, 25, and 26 enjoy the distinguishable features of claim 1 plus contain other elements. Thus, these are also allowable. Claims 2-10, 12-14, 16-18, and 20-24 depend from the amended independent claims and recite further limitations in combination with the novel elements of the independent claims. Therefore, the allowance of the dependent claims is also respectfully requested.

CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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